

**What is claimed is:**

1       An error processing method of a voice code data,  
characterized in that, in a digital communication system  
5       for modulating a coded voice code data by means of a QPSK  
system, and conducting radio communication, an error voice  
code data is detected on a side of a receiver by means of  
error detecting means, and error processing is executed by  
determining a conversion data appropriate for said  
10       detected error voice code data and converting it.

2       An error processing method of a voice code data in a  
digital communication system for modulating a coded voice  
code data by means of a QPSK system and conducting radio  
15       communication, comprising the steps of

      detecting an error voice code data on a side of a  
receiver by error detector,

      executing error process by determining a conversion  
data appropriate for said detected error voice code data  
20       and converting it.

3       An error processing method of a voice code data  
recited in claim 2, wherein said step of executing error  
process further comprising:

      detecting phase content of a voice code data of the

QPSK system for every predetermined bit length and storing it,

reading phase content of an error symbol in case that the error voice code data is detected and determining a symbol data in the second-closest phase range

converting an error symbol part into the determined symbol data, and improving voice quality.

4 An error processing method of a voice code data recited in claim 3, wherein said predetermined bit length is 1 symbol (2 bits).

5 An error processing apparatus of a voice code data in a digital communication system for modulating a coded voice code data by means of a QPSK system and conducting radio communication, comprising:

means for detecting an error voice code data on a side of a receiver, and

means for determining a conversion data appropriate for the error voice code data and converting it.

6 An error processing apparatus of a voice code data recited in claim 5, characterized in that, the means for determining an appropriate conversion data to the error voice code data and converting it has means for detecting

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phase content of a voice code data of the QPSK system for every predetermined bit length, and storing it, means for reading phase content of an error symbol in case that the error voice code data is detected, and determining a symbol data in the second-closest phase range, and means for converting an error symbol part into the determined symbol data, and improving voice quality.

7 An error processing apparatus of a voice code data recited in claim 6, wherein said predetermined bit length is 1 symbol (2 bits).

8 An error processing apparatus of a voice code data, characterized in that, the apparatus has:

15 a demodulator for demodulating a received voice code data,

a base band processing section for detecting a data error from CRC information in a transmission frame after demodulation,

20 a phase content detecting section for detecting phase content of a voice code data of a QPSK system for every symbol,

a phase content storing memory for storing the detected phase content,

25 an error symbol detecting section for identifying an

error symbol,

a conversion data determination processing section  
for determining 1 symbol data to be converted from phase  
content of the error symbol when a data error is detected,

5 a voice data decoding processing section for  
decoding the voice code data, and

a voice code data conversion processing section for  
converting only the error symbol, and sending it to said  
voice data decoding processing section.

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